

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed March 11, 2004 (Paper No. 6). Upon entry of this response, claims 1-12, 15-35, 38-41, 45-46, 48-57 and 59-63 are pending in the application. Claims 12, 15-16, 29-31, 33, 35, 38-39, 45-46, 48-52, 54-55, 57, 59-60 and 63 have been amended, and claims 13-14, 36-37, 42-44, 47, 58 and 64-69 have been cancelled. Applicant respectfully requests that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

1. **Rejection of Claims 42-45 under 35 U.S.C. §103**

Claims 42-45 have been rejected under §103(a) as allegedly obvious over *register.com* in view of *Kwan et al.* (U.S. 6,411,966). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein, or have been rendered moot by claim cancellation. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. **Claims 42-44**

Claims 42-44 are cancelled without prejudice, waiver, or disclaimer, and the rejection of these claims is therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these cancelled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the cancelled subject matter to the public.

b. **Claim 45**

Claim 45 has been amended to recite “means for modifying a first location in the stored portion to reflect the specified change, the first location corresponding to the domain name; means for modifying an update data structure to provide an indication of the modification of the stored portion; means for receiving a request for the specified portion of DNS information from a

client; and means for responding to to the request and to the indication of the modification of the stored portion, by replacing a portion of the cached portion with the contents at the first location of the stored portion.”

Applicant respectfully submits that neither *register.com* nor *Kwan et al.* teaches, discloses, or suggests “in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion.” Neither reference contains any discussion of the DNS information comprising a cached portion and a stored portion.

Since the proposed combination of *register.com* in view of *Kwan et al.* does not teach at least the above-described features recited in claim 45, the rejection should be withdrawn.

2. Rejection of Claims 1-41 and 46-69 under 35 U.S.C. §103

Claims 1-41 and 46-69 have been rejected under §103(a) as allegedly obvious over *register.com* (www.register.com – Domain Name Registration Services) in view of Admitted Prior Art (APA), and further in view of *Patterson et al.* (Computer Organization & Design: The Hardware/Software Interface). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claim 1

1) Combination does not teach all elements

Applicant respectfully submits that claim 1 is allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the feature of “in response to the instruction...modifying the update file to indicate that the stored first zone data file has been updated” as recited in claim 1.

Patterson et al. teaches a specific method of invalidating cached data: use of a cache status bit which, when set to invalid, causes the cache to be updated. In this method, a write by processor A to its cache results in a write to main memory. The cache write also sets the invalid

bits of the cache for processor B. The next time processor B reads from its cache, the invalid bit causes the cache to be flushed and re-read with the contents of main memory, so that the read by B returns the latest data.

Patterson et al. clearly does not teach modifying an update file as recited in claim 1. However, the Office Action asserts that *Patterson et al.*'s method of cache coherency is analogous to modifying an update file:

[t]he client and the DNS computer are separate processors (with their respective caches) and the zone data file can be seen as the main memory. The client updates a value of DNS information, and it propagates to the zone data file. Since the value was updated, the status bit for the computer serving DNS information is marked invalid (updating an Update file), so that the next time the DNS computer uses that cached data, it sees that it must replace the cached data with the updated data in the same data file.
(Office Action, p. 6)

Applicant respectfully asserts that this analogy is flawed, for at least the following reason. Each writer (processor) in *Patterson et al.* has its own cache. Processor A writes to cache A, which affects the contents of the main memory shared by both. Processor B reads from its cache B, which is out of date with respect to main memory. To solve this coherency problem, *Patterson et al.*'s method uses status bits associated with each cache.

In contrast, in the present invention there is one cache shared by both writers (corresponding to client and server, according to the Office Action). Another difference is that the client's request to modify DNS data does not write to this cache – if it did, the cache would not be out of date with respect to the data file. Several modifications to *Patterson et al.* are thus necessary to achieve the present invention as defined by claim 1. Therefore, Applicant respectfully asserts that *Patterson et al.* does not teach, disclose, or suggest the limitations emphasized above. The *register.com* reference does not disclose the limitations disclosed above, as admitted in the Office Action (p. 5). Since the proposed combination, fails to disclose, teach, or suggest every element of the Applicant's claimed invention, rejection should be withdrawn.

2) Update file is not an obvious modification of *Patterson et al.*'s cache status bits

The Office Action alleges that “it would have been obvious to one of ordinary skill in the art at the time of the invention to include, in the modified *register.com* invention, a method of invalidating cached data in the computer so that valid data is always processed, as taught by

Patterson.” (Office Action, p. 6). Applicant respectfully disagrees. In view of the differences noted above, Applicant asserts that an update file is not an obvious modification of the “cache invalid” bit of *Patterson et al.* as applied to the present invention.

b. Claims 12 and 35

Claims 12 and 35 have been amended to recite “modifying a first location in the stored portion to reflect the specified change, the first location corresponding to the domain name; modifying an update data structure to provide an indication of the modification of the stored portion; and in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion.”

Applicant respectfully submits that neither *register.com* nor Admitted Prior Art teaches, discloses, or suggests “in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion.” Furthermore, Applicant respectfully submits that for the reasons argued above, these limitations are not an obvious modification of *Patterson et al.*’s cache status bits. Thus, claims 12 and 35 are allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the above-recited feature of claims 12 and 35.

c. Claims 46 and 49

Claims 46 and 49 have been amended to recite “modifying a first location in the stored portion to include the changed DNS information, the first location corresponding to the domain name; modifying an update data structure to provide an indication of the modification of the stored portion; receiving a request from a client for the DNS information associated with the domain name; in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.”

Applicant respectfully submits that neither *register.com* nor Admitted Prior Art teaches, discloses, or suggests “in response to the request and to the indication of the modification of the

stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.” Furthermore, Applicant respectfully submits that for the reasons argued above, these limitations are not an obvious modification of *Patterson et al.*’s cache status bits. Thus, claims 46 and 49 are allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the above-recited feature of claims 46 and 49.

d. Claim 51

Claim 51 has been amended to recite “a DNS information dynamic modifier component capable of...modifying a first location in a stored portion of the DNS information to include the changed DNS information, the first location corresponding to the domain name, and capable of modifying an update data structure to provide an indication of the modification of the stored portion; and wherein the DNS information dynamic provider component is additionally capable of, after the modifying of the update data structure, receiving a request from a client for the DNS information associated with the domain name, and in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.”

Applicant respectfully submits that neither *register.com* nor Admitted Prior Art teaches, discloses, or suggests “in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.” Furthermore, Applicant respectfully submits that for at least the reasons argued above, these limitations are not an obvious modification of *Patterson et al.*’s cache status bits. Thus, claim 51 is allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the above-recited feature of claim 51.

e. Claim 54

Claim 54 has been amended to recite “modifying a first location in the stored portion to include the indicated new domain name and the indicated DNS information, the first location corresponding to the indicated new domain name; modifying an update data structure to provide an indication of the modification of the stored portion; receiving a request from a client for the DNS information associated with the indicated new domain name; in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.”

Applicant respectfully submits that neither *register.com* nor Admitted Prior Art teaches, discloses, or suggests “in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.” Furthermore, Applicant respectfully submits that for at least the reasons argued above, these limitations are not an obvious modification of *Patterson et al.*’s cache status bits. Thus, claim 54 is allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the above-recited feature of claim 54.

f. Claim 59

Claim 59 has been amended to recite “modifying a first location in the stored portion to include the specified new domain name and the specified DNS information, the first location corresponding to the specified new domain name; modifying an update data structure to provide an indication of the modification of the stored portion; receiving a request from a client for the DNS information associated with the specified new domain name; in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.”

Applicant respectfully submits that neither *register.com* nor Admitted Prior Art teaches, discloses, or suggests “in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of

the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.” Furthermore, Applicant respectfully submits that for at least the reasons ` , these limitations are not an obvious modification of *Patterson et al.*’s cache status bits. Thus, claim 59 is allowable for at least the reason that the proposed combination of *register.com* in view of *Patterson et al.* does not disclose, teach, or suggest at least the above-recited feature of claim 59.

g. Claims 2-11, 13-34, 36-45, 47-48, 50, 52-53, 56-58, 60-64, and 66-69

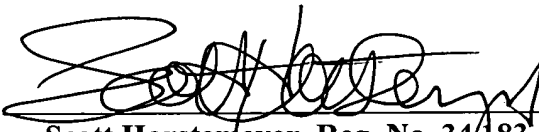
Since claims 12 and 35 are allowable, Applicant respectfully submits that 2-11, 13-34, 36-45, 47-48, 50, 52-53, 56-58, 60-64, and 66-69 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of 2-11, 13-34, 36-45, 47-48, 50, 52-53, 56-58, 60-64, and 66-69 be withdrawn.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-12, 15-35, 38-41, 45-46, 48-57 and 59-63 be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

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